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MAGNETRON

TECHNICAL SHEET
PAD-MOUNTED TRANSFORMERS

F-MKT-04.E.1

CARBON NEUTRAL

UN GLOBAL COMPACT

TECHNICAL SHEET: PAD-MOUNTED TRANSFORMERS

Application:

Pad-mounted transformers are used in underground distribution systems. Their sealed high-voltage and low-voltage safety compartments ensure their safe operation and reduce the risk of accidents, making them ideally suited for use in residential applications, tourist sites, hotels and near buildings. Pad mounted transformers terminations are placed inside a cabinet with doors and locks, usually located outdoors, with dead-front medium-voltage terminal bushings. Single-phase transformers are designed to to be fed to the primary from a line-ground system, in order to avoid magnetic ferroresonance effects.

These transformers come in two basic configurations: radial and loop feed, which are selected based on the type of circuit on which the transformers will be installed.

Radial configuration: the transformer is connected to the primary feeding line and does not allow continuation of the line through the equipment.

Loop configuration: The transformer is connected to the primary feeding line and allows other loads to be fed through it.

Scope of the offer:

Manufactured in compliance with applicable NTC, IEC and ANSI standards and/or individual customer specifications.

Rating (kVA):
Single Phase: 15 kVA to 500 kVA.
Three-phase: 30 kVA to 2500 kVA.

Basic Insulation Level:
Up to BIL 150 kV

Typical construction:

Transformers typically consist of an active part composed of the core (magnetic circuit), the coil (electric circuit) and the yoke clamp, which is determined in accordance with the type of transformer, placed inside a tank that provides the equipment with specific features, depending on its intended application.

Coils:
Rectangular cross section and concentric copper or aluminum windings.
Insulation: High-quality paper with epoxy resin coatings.

Cores:
Shell Type or Core Type, wound, step-lapped for easy assembly and disassembly without loss of dimensional characteristics, guaranteeing low losses and excitation currents.
Materials: Cold-rolled grain-oriented silicon electrical steel sheet with insulating coating on both sides, low core loss and high permeability.

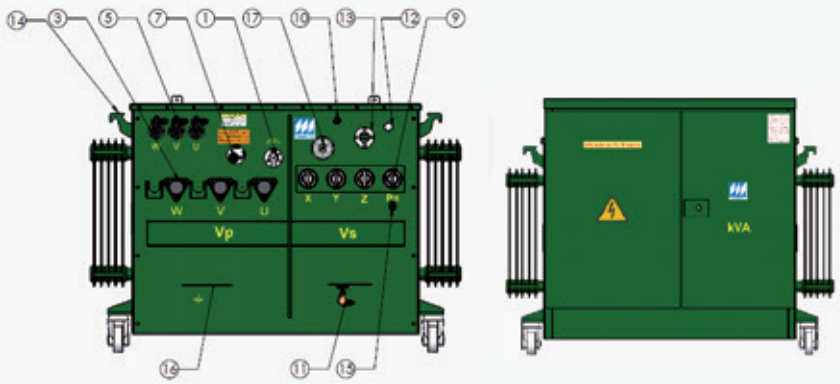
Yoke clamps:
Made of ASTM A36 steel, they clamp the core, with individual bolted caps enabling easy disassembly for maintenance purposes.
They guarantee high resistance to short circuit mechanical stresses, low noise levels.

Tanks:
Rectangular in shape, made of ASTM A36 steel (AISI 304 Stainless steel as optional) sheet with reinforcements capable of withstanding internal pressures due to temperature rise and mechanical stresses due to equipment installation and handling.
MV and LV terminating compartments provide all the security requirements per ANSI C57.12.28 for both circuits, with a mechanical lock for the Low and Medium Voltage circuits, with a mechanical locking system which, for safety reasons, prevents opening of the medium-voltage compartment until the same has been done with the low-voltage one.
Single-phase TANKS have a single compartment with hinges at the top, enabling easy access to the terminals and the transformer's accesories.

Radiators: Attached to the tank, ASTM A36 steel (AISI 304 Stainless steel as optional).

Accessories and protection devices:

Medium voltage accessories used in pad mounted transformers are dead front type, for operation under load (with the exception of 600A), ensuring safe operation.
They are fed through an internal on-load operating switch with bayonet or canister fuse systems ena bling a complete protection system.



Optional accesories
- Wheels
- Load break elbow connector
- Winding temperature indicator
- Pressure vacuum gauge.
-Schrader valve

	DESCRIPCION
1	De-energized tap changer
2	Bushing inserts
3	Bushing well
4	Loadbreak elbow connectors (optional)
5	Bayonet fuse assembly
7	Loadbreak switch
8	Isolation link or CLF
9	Low-voltage Bushings
10	Pressure relief valve
11	Drain valve with sampler
12	Filling plug
13	Oil level indicator
14	Lifting lugs
15	Neutral terminal grounding
16	Tank grounding pads
17	Oil temperature indicator

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